Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-19. (Cancelled)

20. (Original) A DNAzyme which specifically cleaves EGR-1 mRNA, the DNAzyme comprising

(i) a catalytic domain which cleaves mRNA at a purine:pyrimidine cleavage site;

(ii) a first binding domain continuous with the 5' end of the catalytic domain; and

(iii) a second binding domain continuous with the 3' end of the catalytic domain,

wherein the binding domains are sufficiently complementary to the two regions immediately flanking a purine:pyrimidine cleavage site within the region of EGR-1 mRNA corresponding to nucleotides 168-332 as shown in SEQ ID No: 1, such that the DNAzyme cleaves the EGR-1 mRNA.

21. (Original) A DNAzyme as claimed in claim 20 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

22. (Original) A DNAzyme as claimed in claim 20 in which the cleavage site is selected from the group consisting of

(i) the GU site corresponding to nucleotides 198-199;

(ii) the GU site corresponding to nucleotides 200-201;

(iii) the GU site corresponding to nucleotides 264-265;

(iv) the AU site corresponding to nucleotides 271-272;

(v) the AU site corresponding to nucleotides 301-302;

(vi) the GU site corresponding to nucleotides 303-304; and

(vii) the AU site corresponding to nucleotides 316-317.

23. (Original) A DNAzyme as claimed in claim 22 in which the cleavage site is the AU site corresponding to nucleotides 271-272.

24. (Original) A DNAzyme as claimed in claim 22 wherein the 3'-end nucleotide residue is inverted in the

binding domain contiguous with the 3'-end of the catalytic domain.

25. (Original) A DNAzyme as claimed in claim 23 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

26. (Original) A-DNAzyme as claimed in claim 20 in which the catalytic domain has the nucleotide sequence GGCTAGCTACAACGA [SEQ. ID. NO:2].

27. (Original) A DNAzyme as claimed in claim 26 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

28. (Original) A DNAzyme as claimed in claim 26 in which the cleavage site is selected from the group consisting of

(i) the GU site corresponding to nucleotides 198-199;

(ii) the GU site corresponding to nucleotides 200-201 ;

(iii) the GU site corresponding to nucleotides 264-265;

(iv) the AU site corresponding to nucleotides 271-272;

(v) the AU site corresponding to nucleotides 301-302;

(vi) the GU site corresponding to nucleotides 303-304; and

(vii) the AU site corresponding to nucleotides 316-317.

29. (Original) A DNAzyme as claimed in claim 28 in which the cleavage site is the AU site corresponding to nucleotides 271-272.

30. (Original) A DNAzyme as claimed in claim 28 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

31. (Original) A DNAzyme as claimed in claim 29 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

32. (Original) A DNAzyme as claimed in claim 20 wherein each binding domain is nine or more nucleotides in length.

33. (Original) A DNAzyme as claimed in claim 32 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

34. (Original) A DNAzyme as claimed in claim 32 in which the cleavage site is selected from the group consisting of

(i) the GU site corresponding to nucleotides 198-199;

(ii) the GU site corresponding to nucleotides 200-201 ;

(iii) the GU site corresponding to nucleotides 264-265;

(iv) the AU site corresponding to nucleotides 271-272;

(v) the AU site corresponding to nucleotides 301-302;

(vi) the GU site corresponding to nucleotides 303-304; and

(vii) the AU site corresponding to nucleotides 316-317.

35. (Original) A DNAzyme as claimed in claim 34 in which the cleavage site is the AU site corresponding to nucleotides 271-272.

36. (Original) A DNAzyme as claimed in claim 34 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

37. (Original) A DNAzyme as claimed in claim 35 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

38. (Original) A DNAzyme as claimed in claim 32 in which the catalytic domain has the nucleotide sequence GGCTAGCTACAACGA [SEQ ID NO: 2].

39. (Original) A DNAzyme as claimed in claim 38 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

40. (Original) A DNAzyme as claimed in claim 38 in which the cleavage site is selected from the group consisting of

(i) the GU site corresponding to nucleotides 198-199;

(ii) the GU site corresponding to nucleotides 200-201;

(iii) the GU site corresponding to nucleotides 264-265;

(iv) the AU site corresponding to nucleotides 271-272;

(v) the AU site corresponding to nucleotides 301-302;

(vi) the GU site corresponding to nucleotides 303-304; and

(vii) the AU site corresponding to nucleotides 316-317.

41. (Original) A DNAzyme as claimed in claim 40 in which the cleavage site is the AU site corresponding to nucleotides 271-272.

42. (Original) A DNAzyme as claimed in claim 40 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

43. (Original) A DNAzyme as claimed in claim 41 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

44. (Original) A DNAzyme as claimed in claim 20 which has a sequence selected from the group consisting of:

(i) 5'-caggggacaGGCTAGCTACAACGAcgttgcggg (SEQ ID NO: 3);

(ii) 5'-tgcaggggaGGCTAGCTACAACGAaccgttgcg(SEQ ID NO: 4);

(iii) 5'-catcctggaGGCTAGCTAC AACGAgagcaggct (SEQ ID NO: 5);

(iv) 5'-ccgcggccaGGCTAGCTACAACGAcctggacga (SEQ ID NO: 6);

(v) 5'-ccgctgccaGGCTAGCTACAACGAcccggacgt (SEQ ID NO: 7);

(vi) 5'-gcggggacaGGCTAGCTACAACGAcagctgcat(SEQ ID NO: 8);

(vii) 5'-cagcggggaGGCTAGCTACAACGAatcagctgc (SEQ ID NO: 9); and

(viii) 5'-ggtcagagaGGCTAGCTACAACGActgcagcgg(SEQ ID NO: 10).

45. (Original) A DNAzyme as claimed in claim 44 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

46. (Original) A DNAzyme as claimed in claim 44 which has the sequence:

5'-ccgcggccaGGCTAGCTACAACCAcctggacga (SEQ ID NO: 6).

47. (Original) A DNAzyme as claimed in claim 46 wherein the 3'-end nucleotide residue is inverted in the binding domain contiguous with the 3'-end of the catalytic domain.

48. (Previously Presented) A pharmaceutical composition comprising a DNAzyme according to ~~claims~~claim 20 ~~and~~ a pharmaceutically acceptable carrier.

Claims 49-58. (Cancelled)

59. (Withdrawn) An angioplastic stent for inhibition of the onset of restenosis, which comprises an angioplastic stent operably coated with a prophylactially effective dose of DNAzyme according to claim 20.

60. (Withdrawn) A method for inhibiting the onset of restenosis in a subject undergoing angioplasty, which comprises topically administering a prophylactically effective dose of a pharmaceutical composition according to claim 48 to the subject at around the time of the angioplasty.

61. (Withdrawn) A method according to claim 60 in which the pharmaceutical composition is administered by catheter.

62. (Withdrawn) A method for inhibiting the onset of restenosis in a subject undergoing angioplasty, which comprises topically administering a stent according to claim 58 to the subject at around the time of the angioplasty.